

Application No. 10/679,394
Amendment dated November 2, 2006
Reply to Office Action of August 2, 2006

Docket No.: 0941-0854P

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REMARKS

Claims 1 and 3-12 are now present in this application.

The specification and claim 1 have been amended, claim 2 has been cancelled without prejudice or disclaimer, and claims 10-12 have been presented. Reconsideration of the application, as amended, is respectfully requested.

Claims 1-9 stand rejected under 35 USC 112. This rejection is respectfully traversed.

Claims 1, 3-7 and 9 stand rejected under 35 USC 102(b) as being unpatentable over Kadowaki et al., U.S. Patent 5,693,111. This rejection is respectfully traversed.

Claims 2 and 8 stand rejected under 35 USC 103 as being unpatentable over Kadowaki et al., U.S. Patent 5,693,111. This rejection is respectfully traversed.

Amendments to the Claims

Support for the foregoing amendments to claim 1 and support for newly presented claim 10 can be found on page 7, lines 1-9 of the originally filed specification. Support for newly presented claims 11 and 12 can be found on page 8, line 9 through page 9, line 12 of the originally filed specification, and in FIGS. 4A and FIG. 4B.

Rejection under 35 USC 112

Claims 1-9 stand rejected under 35 USC 112, second paragraph. This rejection is respectfully traversed.

In view of the foregoing amendments, it is respectfully submitted that all claims particularly point out and distinctly claim the subject matter of the instant invention.

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Reconsideration and withdrawal of the 35 USC 112, second paragraph rejection are respectfully requested.

Rejection under 35 USC 102(b)

Claims 1, 3-7 and 9 stand rejected under 35 USC 102(b) as being unpatentable over Kadowaki et al., U.S. Patent 5,693,111. This rejection is respectfully traversed.

Referring to MPEP 2131, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claim is known in the prior art." *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001) (claim to a system for setting a computer clock to an offset time to address the Year 2000 (Y2K) problem, applicable to records with year date data in "at least one of two-digit, three-digit, or four-digit" representations, was held anticipated by a system that offsets year dates in only two-digit formats). See also MPEP § 2131.02. "*The identical invention must be shown in as complete detail as is contained in the ... claim.*" *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. In *re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990). Note that, in some circumstances, it is permissible to use multiple references in a 35 U.S.C. 102 rejection. See MPEP § 2131.01.

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On page 3 of the Office Action, the Examiner asserts that Kadowaki teaches that "the claimed steps of providing a pedestal and pressing plate is best depicted by figure 4 showing pedestal 22 and pressing plate 23 applying pressure on the light emitting diodes".

Referring to column 8, lines 28-36, Kadowaki teaches that "fours bolts are inserted through corners of the *upper and lower support plates 23 and 22*, followed by threaded fitting of the nuts 25 on the bolts 24. *This results in the envelopes 30 being interposedly fastened between the upper support plate 23 and the lower support plate 22 through the bolt-nut combination.* Then, the envelopes 30 are introduced into the oven while being kept fastened, so that the sealing glass material 4 of each of the envelopes 30 may be wholly melted, to thereby seal the envelope" (emphasis added).

Independent claim 1, however, recites (emphasis added):

"1. A method of encapsulating a display element, comprising steps of:

providing an organic light emitting diode or a plastic light emitting diode, comprising a luminescent body formed on a glass substrate and a glass cap with a rib structure formed on the bottom surface thereof;

coating a sealing layer of frit on the rim of the glass cap and surrounding the rib structure;

providing a pedestal on an outer side of the glass substrate,

providing a pressing plate on the glass cap;

providing a high-power beam penetrating the glass cap to focus on the sealing layer so as to sinter the frit; and

applying pressure on the pedestal and the pressing plate.;

wherein *at least one of the pressing plate and the pedestal is of metal materials with good thermal conductivity, such that the pressing plate and/or the pedestal sink the heat generated from sintering the frit.*"

It is clear that the method of encapsulating a display element set forth in independent claim 1 comprises at least one of the pressing plate and the pedestal of metal materials with good

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thermal conductivity, such that the pressing plate and/or the pedestal sink the heat generated from sintering the frit.

Kadowaki teaches the envelopes 30 being interposedly fastened between the upper support plate 23 and the lower support plate 22 through the bolt-nut combination. Kadowaki, however, does not teach or suggest at least one of the pressing plate and the pedestal of metal materials with good thermal conductivity, such that the pressing plate and/or the pedestal sink the heat generated from sintering the frit.

Further, in page 4 of the Office Action, the Examiner asserts that "it would have been obvious to a person of ordinary skill in the art to have used metal to form the pressing plate and pedestal of Kadowaki in order to take advantage of its readily known physical properties such as hardness and high melting point."

Referring to column 8, line 46, Kadowaki sets forth that, "[r]eferring now to FIGS. 3 and 4, another embodiment of each of a method for sealedly forming an envelope and an apparatus therefor according to the present invention is illustrated. The embodiment shown in FIGS. 3 and 4 is directed to an envelope for a *field emission type display device (FED)*."

It should be clear to one of ordinary skill in the art that Kadowaki is directed to an envelope for a field emission type display device (FED). However, it is well known in the art that FED can endure higher heat. Therefore, heat generated from sintering the frit is not an issue in Kadowaki. One of ordinary skill in the art would not modify Kadowaki to use high conductive metal to form the pressing plate and pedestal. Consequently, the method of the present application is not obvious in view of Kadowaki.

In view of the foregoing amendments and remarks, it is respectfully submitted that the prior art utilized by the Examiner fails to teach or suggest the method of independent claim 1 and

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its dependent claims. Accordingly, reconsideration and withdrawal of the 35 USC 102 rejection are respectfully requested.

Rejection under 35 USC 103

Claims 2 and 8 stand rejected under 35 USC 103 as being unpatentable over Kadowaki et al., U.S. Patent 5,693,111. This rejection is respectfully traversed.

First, it is noted that claim 2 has been cancelled, thereby rendering this portion of the rejection moot.

Next, it is noted that claim 8 depends from independent claim 1. In view of the foregoing amendments and remarks, it is respectfully submitted that the prior art utilized by the Examiner fails to teach or suggest the method of independent claim 1 and its dependent claims. Reconsideration and withdrawal of the 35 USC 103 rejection are respectfully requested.

Newly Presented Claims

Newly presented claim 10 sets forth that *the pressing plate and the pedestal are formed of copper.*

As recited above, Kadowaki indeed teaches the envelopes 30 being interposedly fastened between the upper support plate 23 and the lower support plate 22 through the bolt-nut combination. Kadowaki does not, however, teach or suggest the pressing plate and the pedestal being formed of copper. One of ordinary skill in the art would not modify Kadowaki to use copper to form the pressing plate and pedestal. Copper is a material with very high conductivity, such that the pressing plate and/or the pedestal can sink the heat generated by sintering the frit

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more efficiently. Accordingly, claim 10 should also be allowable over the prior art utilized by the Examiner.

Independent claim 11 recites (emphasis added):

11. A method of encapsulating a display element, comprising steps of:

providing an organic light emitting diode or a plastic light emitting diode, comprising a luminescent body formed on a glass substrate, and a glass cap;

forming a rib structure on a bottom surface of the glass cap, surrounding the organic light emitting diode or the plastic light emitting diode;

coating a sealing layer of frit on the rim of the glass cap and surrounding the rib structure after forming the rib structure;

combining the glass substrate and the glass cap with a gap therebetween defined by the rib structure;

providing a pedestal on an outer side of the glass substrate;

providing a pressing plate on the glass cap;

providing a high-power beam penetrating the glass cap to focus on the sealing layer so as to sinter the frit; and

applying pressure on the pedestal and the pressing plate.

It should be clear to one of ordinary skill in the art that the method of encapsulating a display element in independent claim 11 comprises forming a rib structure on a bottom surface of the glass cap, surrounding the organic light emitting diode or the plastic light emitting diode, and coating a sealing layer of frit on the rim of the glass cap and surrounding the rib structure *after forming the rib structure*.

In page 3 of the Office Action, the Examiner asserts that "the claimed rib on the glass cap is deemed as rib structure element 6 and the claimed frit coating the rib structure is deemed as frit show in figure 8(d) coating the structure 6."

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Referring to column 3, lines 23-40, Kadowaki teaches that "the sealing glass material 4 which has the glass beads 6 of a microdiameter incorporated therein is applied to or arranged on a periphery of a surface of the cathode substrate 2."

The sealing glass material 4, as described above, has the fine glass beads 6 incorporated therein, so that the anode substrate 1 and cathode substrate 2 may be oppositely arranged so as to be spaced from each other through a gap of a microdistance defined therebetween by the glass beads 6.

It is clear that Kadowaki teaches a sealing glass material 4 which has glass beads 6 applied to or arranged on a periphery of a surface of the cathode substrate 2. Kadowaki, however, does not teach forming a rib structure on a bottom surface of the glass cap, surrounding the organic light emitting diode or the plastic light emitting diode, and coating a sealing layer of frit on the rim of the glass cap and surrounding the rib structure *after forming the rib structure*, as is set forth in independent claim 11. Accordingly, independent claim 11 should also be patentable over the prior art utilized by the Examiner.

Conclusion

Favorable reconsideration and an early Notice of Allowance are earnestly solicited.

Because the additional prior art cited by the Examiner has been included merely to show the state of the prior art and has not been utilized to reject the claims, no further comments concerning these documents are considered necessary at this time.

In the event that any outstanding matters remain in this application, the Examiner is invited to contact the undersigned at (703) 205-8000 in the Washington, D.C. area.

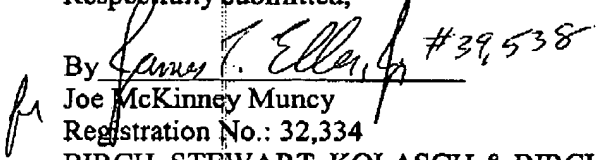
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: November 2, 2006

Respectfully submitted,

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